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# *Indiana Public Retirement System*

Judges' Retirement System

Actuarial Valuation as of  
June 30, 2012





December 20, 2012

Board of Trustees  
Indiana Public Retirement System  
1 North Capitol, Suite 001  
Indianapolis, IN 46204

**Re: Certification of the Actuarial Valuations of the Indiana Public Retirement System as of as of June 30, 2012**

Dear Board of Trustees:

Actuarial valuations are performed annually for the Indiana Public Retirement System ("INPRS") defined benefit pension plans ("Plans"). The results of the latest actuarial valuations, which were prepared as of June 30, 2012, are presented in individual valuation reports for each fund and were prepared pursuant to the engagement letter between INPRS and PricewaterhouseCoopers LLP ("PwC"), dated June 7, 2010. The reports are intended to provide the Board of Trustees ("Board") with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information.

Under Indiana statutes, employer contribution rates and amounts, as applicable, are adopted annually for each Plan by the Board. The contributions are actuarially determined based on the Board's funding policy and adopted actuarial assumptions. Contributions determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. For example, contribution rates determined by the June 30, 2012 actuarial valuation and adopted by the Board will become effective on either July 1, 2013 or January 1, 2014. If new legislation is enacted between the valuation date and the date the contributions become effective, the Board may adjust the recommended contributions before adopting them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

**Financing Objectives and Funding Policy**

In setting contribution levels, the Board's principal objectives have been:

- To set contributions such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a 30-year period.
- To set contributions such that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that employer contributions be equal to the sum of the employer normal cost (which pays the current year cost of benefits accruing) and an amortization of the UAAL in equal installments.

No membership growth is anticipated in setting the contributions. This is consistent with GASB #25, which prohibits anticipating membership growth in determining the Annual Required Contribution ("ARC").

**Progress Toward Realization of Financing Objectives**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The combined funded ratio for all Plans decreased by 4.2% from the preceding year to 79.2%, primarily due to fiscal 2012 investment returns of 0.7% being below the actuarial assumed rate of 7.0%, delayed recognition of prior asset losses from fiscal 2009 in the Actuarial Value of Assets, a decrease in the discount rate from 7.0% to 6.75%, and an update to the mortality table assumption.

**Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2012, as set forth in the related Indiana statutes. None of the Plans had any material changes in benefit provisions since the 2011 valuation; however, a 13th Check was provided to retirees in PERF and EG&C in lieu of a Cost-of-Living Adjustment.



### Assets and Member Data

The valuations were based on asset values of the trust funds and member census data as of June 30, 2012. All asset information and member data were provided by INPRS. While certain checks for reasonableness were performed, the data was used unaudited. The accuracy of the results presented in the reports is dependent upon the accuracy and completeness of the underlying asset and census information.

### Actuarial Assumptions and Methods

The majority of the actuarial assumptions used in the June 30, 2012 valuations were adopted by the Board pursuant to the Experience Studies completed in September 2011, which reflected the experience period from July 1, 2005 through June 30, 2010, and were first used in the June 30, 2011 valuation. The actuarial assumptions for interest rate and mortality were updated for the June 30, 2012 valuation. The actuarial assumptions and methods are summarized in the Actuarial Assumptions and Methods section of each valuation report. We believe the actuarial assumptions and methods are reasonable for the purposes of the valuation reports and comply with the parameters set forth in Statements No. 25 and No. 27 of the Governmental Accounting Standards Board ("GASB"). Different assumptions and methods may be reasonable for other purposes. As such, the results presented in the valuation reports should only be relied upon for the intended purpose.

### Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of each Plan administered by INPRS as of June 30, 2012 based on the underlying census data, asset information and selected assumptions and methods.

This report contains the required accounting information to be included in the Comprehensive Annual Financial Report. This information has been prepared in accordance with our understanding of Governmental Accounting Standards No. 25 and No. 27 (as amended by No. 50). This report does not contain accounting information prepared in accordance with Governmental Accounting Standards No. 67 and No. 68, which will become effective for financial statements for fiscal years beginning after June 15, 2013.

To the best of our knowledge this actuarial statement is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with our understanding of the requirements of Indiana state law. The undersigned actuaries are members of the Society of Actuaries and other professional organizations, including the American Academy of Actuaries, and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States relating to pension plans. There is no relationship between the PwC practitioners involved in this engagement and INPRS that may impair our objectivity.

This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state, or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law. This document has been prepared pursuant to an engagement letter between INPRS and PwC, and is intended solely for the use and benefits of INPRS and not for reliance by any other person.

Respectfully submitted,

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## SECTION I - EXECUTIVE SUMMARY

### **HIGHLIGHTS OF THE ACTUARY'S REPORT**

This report presents the results of the actuarial valuation of the Judges' Retirement System ("JRS") and has been prepared to present the current funded status of the Plan, contribution requirements for fiscal year 2014 (July 1, 2013 through June 30, 2014), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of June 30, 2012 provided by INPRS, asset information as of June 30, 2012 provided by INPRS, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2012 as summarized in Section VI.

#### **Contributions**

JRS is a State appropriated fund. All employer contributions are made by the State of Indiana. The annual required contribution will increase from \$25,458,485 for fiscal 2013 to \$28,189,815 for fiscal 2014. In addition, a contribution in the amount of \$90,187,160 will be made after June 30, 2012 pursuant to HB 1376.

Members of JRS contribute 6% of their compensation during their first 22 years of membership. If a JRS member terminates employment with less than 8 years of service, the accumulated contributions with interest can be withdrawn as a lump sum or the member may direct the JRS to make a direct rollover of the distribution amount. When a member becomes vested, the member's account balance may not be refunded and is instead combined with the employee contributions in order to fund the member's future retirement annuity benefit.

#### **Funded Status**

The funded status of JRS is measured by the funded ratio, which is the ratio of the assets available for benefits to a benefit liability measure for JRS. While there are several such measures that could be appropriately used, the benefit liability measure that ties most closely to your funding strategy is the Actuarial Accrued Liability ("AAL").

Using the Actuarial Value of Assets ("AVA"), an asset value that smoothes the market gains and losses over four (4) years, JRS AAL funded ratio decreased from 62.1% at June 30, 2011 to 59.4% at June 30, 2012. The decrease is primarily due to the decrease in discount rate, updated mortality table and recognition of asset experience and demographic losses.

#### **Investment Experience**

The assets of JRS are commingled with the assets of other funds administered by INPRS. The overall INPRS return on the commingled funds was 0.7% during fiscal 2012. Based on the value of assets allocated to JRS as of the prior valuation date and contribution and benefit payment activity during the year, the allocation of returns to JRS represent a return of approximately 0.2% on market value and 2.6% on actuarial value. The return on actuarial value is different due to the smoothing of returns greater or less than expected returns over four years.

#### **Cost-of-Living Adjustment**

Benefits for retired members increase automatically based on the annual pay increase granted for the position the member held at the time of retirement. The annual cost-of-living assumption for the valuation is 4.0%, which is the same as the salary increase assumption for active members. A cost-of-living increase of 2.2% took effect on July 1, 2012.

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## SECTION I - EXECUTIVE SUMMARY

### **HIGHLIGHTS OF THE ACTUARY'S REPORT (CONTINUED)**

#### **Changes in Actuarial Assumptions**

For the June 30, 2012 valuation, the Board approved the following assumption changes:

- The interest rate assumption was decreased from 7.0% to 6.75%.
- The mortality table was changed from the 2008 IRS Static Mortality projected five (5) years with Scale AA to the 2013 IRS Static Mortality projected five (5) years with Scale AA.

#### **Changes in Plan Provisions**

It is our understanding that there were no changes to the Plan or underlying status that impacted the pension benefits during the fiscal year.

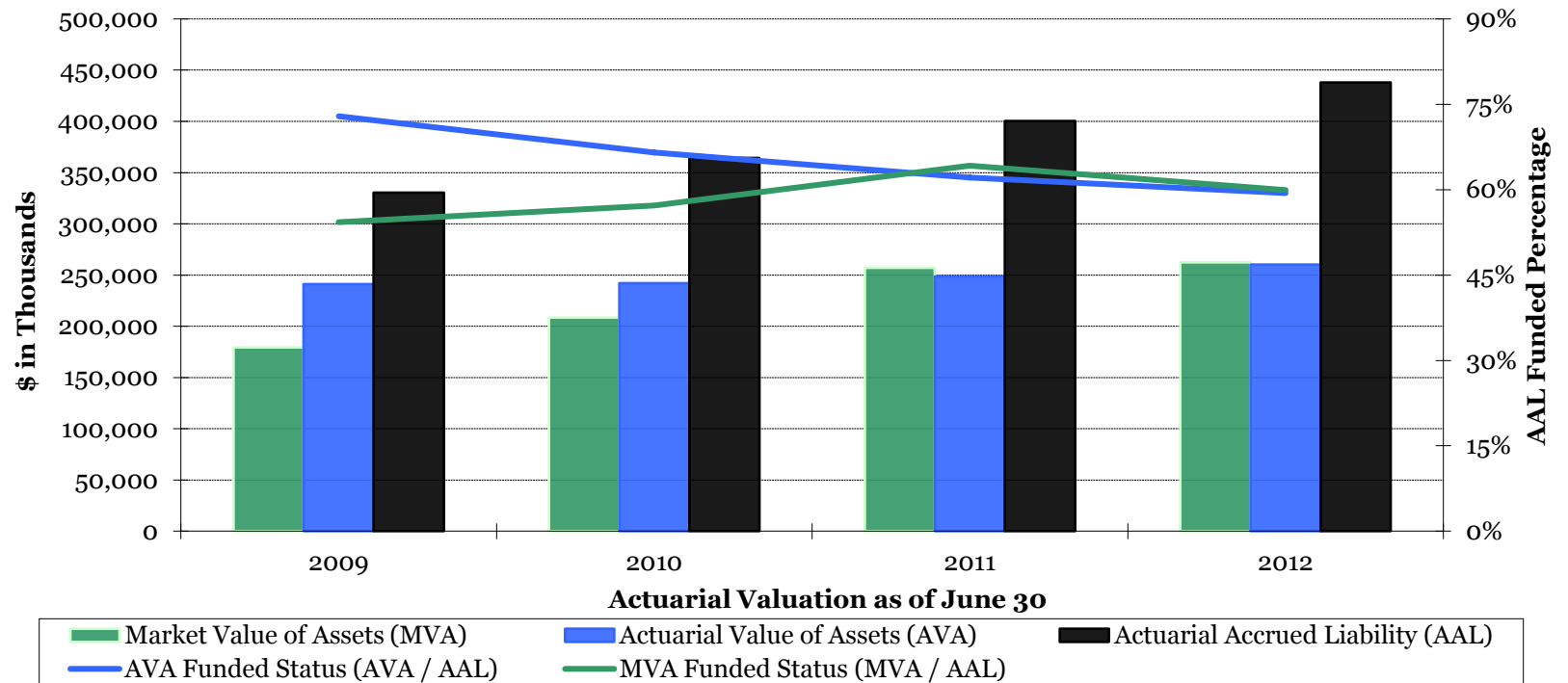
#### **Changes in Actuarial Methods**

There have been no changes in actuarial methods since the June 30, 2011 valuation.

## SECTION I - EXECUTIVE SUMMARY

### HISTORICAL SUMMARY

#### JRS – 4 Year History of Funded Status <sup>1</sup>



| <u>Actuarial Valuation as of June 30:</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|---|-------------|-------------|-------------|-------------|
| Actuarial Accrued Liability (AAL)         | \$330,551.2 | \$364,122.7 | \$400,273.5 | \$437,854.5 |
| Actuarial Value of Assets (AVA)           | 240,953.9   | 242,142.8   | 248,623.3   | 260,096.4   |
| Market Value of Assets (MVA)              | 179,428.1   | 208,395.2   | 256,985.8   | 262,325.7   |
| Unfunded Liability (AAL - AVA)            | 89,597.3    | 121,979.9   | 151,650.2   | 177,758.1   |
| AVA Funded Status (AVA / AAL)             | 72.9%       | 66.5%       | 62.1%       | 59.4%       |
| MVA Funded Status (MVA / AAL)             | 54.3%       | 57.2%       | 64.2%       | 59.9%       |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## SECTION I - EXECUTIVE SUMMARY

### **HISTORICAL SUMMARY (CONTINUED)**

#### **Summary of Valuation Results**<sup>1, 2</sup>

| <b><u>Valuation Date</u></b>                         | <b><u>June 30, 2009</u></b> | <b><u>June 30, 2010</u></b> | <b><u>June 30, 2011</u></b> | <b><u>June 30, 2012</u></b> |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Estimated State Appropriations                       |                             |                             |                             |                             |
| Normal Cost (Beginning of Year)                      | \$ 10,425,527               | \$ 11,567,716               | \$ 15,281,754               | \$ 16,084,589               |
| Amortization of Unfunded Actuarial Accrued Liability | 7,134,782                   | 9,515,365                   | 11,873,696                  | 13,705,127                  |
| Interest Adjustment <sup>3</sup>                     | 636,561                     | -                           | -                           | -                           |
| Employee Contributions                               | (2,120,001)                 | (2,173,160)                 | (2,678,007)                 | (2,684,888)                 |
| Estimated State Appropriations                       | \$ 16,076,869               | \$ 18,909,921               | \$ 24,477,443               | \$ 27,104,828               |
| <br>   |                             |                             |                             |                             |
| <b><u>Fiscal Year</u></b>                            | <b><u>2011</u></b>          | <b><u>2012</u></b>          | <b><u>2013</u></b>          | <b><u>2014</u></b>          |
| State Appropriations <sup>4</sup>                    | \$ 19,199,927               | \$ 18,896,172               | \$ 111,415,160              | \$ 20,894,732               |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> The contribution amounts shown were developed on a funding basis only and do not reflect accounting requirements.

<sup>3</sup> Valuation results prior to June 30, 2010 included an interest adjustment to the middle of the year because the payroll used for computing contribution rates was not discounted to the beginning of the year.

<sup>4</sup> An additional contribution in the amount of \$90,187,160 will be made after June 30, 2012 pursuant to HB 1376.



## SECTION I - EXECUTIVE SUMMARY

### **HISTORICAL SUMMARY (CONTINUED)**

#### **Summary of Valuation Results (Continued)**<sup>1</sup>

|                                    | <u>June 30, 2009</u> | <u>June 30, 2010</u> | <u>June 30, 2011</u> | <u>June 30, 2012</u> |
|------------------------------------|----------------------|----------------------|----------------------|----------------------|
| Census Information                 |                      |                      |                      |                      |
| Active                             |                      |                      |                      |                      |
| Number                             | 288                  | 291                  | 363                  | 361                  |
| Average Age                        | 54.1                 | 55.0                 | 54.3                 | 54.9                 |
| Average Years of Service           | 8.7                  | 9.5                  | 8.3                  | 8.9                  |
| Covered Payroll of Actives         | \$ 36,195,775        | \$ 36,721,919        | \$ 45,764,278        | \$ 45,138,370        |
| Inactive - Vested                  |                      |                      |                      |                      |
| Number                             | 83                   | 73                   | 66                   | 72                   |
| Average Age                        |                      | 60.7                 | 61.0                 | 61.1                 |
| Average Years of Service           |                      | 18.4                 | 18.1                 | 18.6                 |
| Inactive - Non-Vested <sup>2</sup> |                      |                      |                      |                      |
| Number                             |                      | 31                   | 31                   | 28                   |
| Retiree/Beneficiary/Disabled       |                      |                      |                      |                      |
| Number                             | 293                  | 298                  | 310                  | 311                  |
| Average Age                        |                      | 75.3                 | 75.1                 | 75.4                 |
| Annual Benefits Payable            | \$ 15,229,582        | \$ 15,389,828        | \$ 16,787,212        | \$ 17,027,599        |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> For June 30, 2012, inactive non-vested members entitled to a refund of their member contributions totaling \$439,300.

## SECTION I - EXECUTIVE SUMMARY

### HISTORICAL SUMMARY (CONTINUED)

#### Summary of Valuation Results (Continued) <sup>1</sup>

|  | <u>June 30, 2009</u> | <u>June 30, 2010</u> | <u>June 30, 2011</u> | <u>June 30, 2012</u> |
|--|----------------------|----------------------|----------------------|----------------------|
| <b>Actuarial Accrued Liability</b>                     |                      |                      |                      |                      |
| ASA Account Balance                                    | \$ 21,649,000        | \$ 23,137,615        | \$ 24,359,001        | \$ 27,699,555        |
| Retiree/Beneficiary/Disabled                           | 170,962,026          | 182,023,263          | 198,796,748          | 205,340,787          |
| Active and Inactive                                    | <u>137,940,181</u>   | <u>158,961,853</u>   | <u>177,117,795</u>   | <u>204,814,117</u>   |
| Total  | \$ 330,551,207       | \$ 364,122,731       | \$ 400,273,544       | \$ 437,854,459       |
| <b>Actuarial Value of Assets (AVA)</b>                 |                      |                      |                      |                      |
| ASA Account Balance                                    | \$ 21,649,000        | \$ 23,137,615        | \$ 24,359,001        | \$ 27,699,555        |
| Retiree/Beneficiary/Disabled                           | 170,962,026          | 182,023,263          | 198,796,748          | 205,340,787          |
| Active and Inactive                                    | <u>48,342,855</u>    | <u>36,981,965</u>    | <u>25,467,608</u>    | <u>27,056,065</u>    |
| Total  | \$ 240,953,881       | \$ 242,142,843       | \$ 248,623,357       | \$ 260,096,407       |
| <b>Market Value of Assets (MVA)</b>                    |                      |                      |                      |                      |
| ASA Account Balance                                    | \$ 21,649,000        | \$ 23,137,615        | \$ 24,359,001        | \$ 27,699,555        |
| Retiree/Beneficiary/Disabled                           | 157,779,055          | 182,023,263          | 198,796,748          | 205,340,787          |
| Active and Inactive                                    | <u>-</u>             | <u>3,234,360</u>     | <u>33,830,004</u>    | <u>29,285,340</u>    |
| Total  | \$ 179,428,055       | \$ 208,395,238       | \$ 256,985,753       | \$ 262,325,682       |
| <b>Unfunded Actuarial Accrued Liability: AAL - AVA</b> |                      |                      |                      |                      |
| ASA Account Balance                                    | \$ -                 | \$ -                 | \$ -                 | \$ -                 |
| Retiree/Beneficiary/Disabled                           | -                    | -                    | -                    | -                    |
| Active and Inactive                                    | <u>89,597,326</u>    | <u>121,979,888</u>   | <u>151,650,187</u>   | <u>177,758,052</u>   |
| Total  | \$ 89,597,326        | \$ 121,979,888       | \$ 151,650,187       | \$ 177,758,052       |
| <b>Funded Percentage</b>                               |                      |                      |                      |                      |
| ASA Account Balance                                    | 100.0%               | 100.0%               | 100.0%               | 100.0%               |
| Retiree/Beneficiary/Disabled                           | 100.0%               | 100.0%               | 100.0%               | 100.0%               |
| Active and Inactive                                    | <u>35.0%</u>         | <u>23.3%</u>         | <u>14.4%</u>         | <u>13.2%</u>         |
| Total  | 72.9%                | 66.5%                | 62.1%                | 59.4%                |
| <b>Summary of Assumptions</b>                          |                      |                      |                      |                      |
| Valuation Interest Rate                                | 7.25%                | 7.0%                 | 7.0%                 | 6.75%                |
| Salary Scale   | 4.0%                 | 4.0%                 | 4.0%                 | 4.0%                 |
| Cost-of-Living Assumption                              | 4.0%                 | 4.0%                 | 4.0%                 | 4.0%                 |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

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## SECTION II - FUNDING

### **FUNDING**

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## SECTION II - FUNDING

### A. Development of Funded Status

|  | <u>June 30, 2011</u> | <u>June 30, 2012</u> |
|--|----------------------|----------------------|
| 1. Actuarial Accrued Liability                             |                      |                      |
| a. Annuity Savings Account                                 | \$ 24,359,001        | \$ 27,699,555        |
| b. Retirees, Beneficiaries, and Disableds                  | 198,796,748          | 205,340,787          |
| c. Actives and Inactives                                   | <u>177,117,795</u>   | <u>204,814,117</u>   |
| d. Total: (1)(a) + (1)(b) + (1)(c)                         | \$ 400,273,544       | \$ 437,854,459       |
| 2. Actuarial Value of Assets                               |                      |                      |
| a. Annuity Savings Account                                 | \$ 24,359,001        | \$ 27,699,555        |
| b. Retirees, Beneficiaries, and Disableds                  | 198,796,748          | 205,340,787          |
| c. Actives and Inactives                                   | <u>25,467,608</u>    | <u>27,056,065</u>    |
| d. Total: (2)(a) + (2)(b) + (2)(c)                         | \$ 248,623,357       | \$ 260,096,407       |
| 3. Unfunded Actuarial Accrued Liability                    |                      |                      |
| a. Annuity Savings Account: (1)(a) - (2)(a)                | \$ -                 | \$ -                 |
| b. Retirees, Beneficiaries, and Disableds: (1)(b) - (2)(b) | -                    | -                    |
| c. Actives and Inactives: (1)(c) - (2)(c)                  | <u>151,650,187</u>   | <u>177,758,052</u>   |
| d. Total: (1)(d) - (2)(d)                                  | \$ 151,650,187       | \$ 177,758,052       |
| 4. Funded Percentage                                       |                      |                      |
| a. Annuity Savings Account: (2)(a) / (1)(a)                | 100.0%               | 100.0%               |
| b. Retirees, Beneficiaries, and Disableds: (2)(b) / (1)(b) | 100.0%               | 100.0%               |
| c. Actives and Inactives: (2)(c) / (1)(c)                  | <u>14.4%</u>         | <u>13.2%</u>         |
| d. Total: (2)(d) / (1)(d)                                  | 62.1%                | 59.4%                |

## SECTION II - FUNDING

### B. Unfunded Actuarial Accrued Liability Reconciliation

|  | <u>June 30, 2011</u> | <u>June 30, 2012</u>     |
|--|----------------------|--------------------------|
| 1. Unfunded Actuarial Accrued Liability, Prior Year                            | \$ 121,979,888       | \$ 151,650,187           |
| 2. Unfunded Actuarial Accrued Liability (Gain) / Loss                          |                      |                          |
| a. Actuarial Value of Assets Experience  | \$ 16,372,415        | \$ 17,654,755            |
| b. Actuarial Accrued Liability Experience                                      | (1,274,320)          | 707,995                  |
| c. Additional Liability Due to Cost-of-Living Adjustments                      | -                    | (7,143,624) <sup>1</sup> |
| d. Additional Liability Due to Changes in Actuarial Assumptions                | 16,215,052           | 16,978,081 <sup>2</sup>  |
| e. Additional Liability Due to Changes in Plan Provisions                      | -                    | -                        |
| f. Total New Amortization Bases:<br>(2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) | <u>\$ 31,313,147</u> | <u>\$ 28,197,207</u>     |
| g. Reduction in Existing Bases Due to Prior Year Amortization, Net of Interest | <u>(1,642,848)</u>   | <u>(2,089,342)</u>       |
| h. Change in Unfunded Actuarial Accrued Liability:<br>(2)(f) + (2)(g)          | \$ 29,670,299        | \$ 26,107,865            |
| 3. Unfunded Actuarial Accrued Liability, Current Year: (1) + (2)(h)            | \$ 151,650,187       | \$ 177,758,052           |

<sup>1</sup> A Cost-of-Living Adjustment (COLA) of 2.2% was effective as of July 1, 2012, rather than the assumed COLA of 4.0%.

<sup>2</sup> Assumption changes include the change in discount rate from 7.0% to 6.75% and change in mortality table from the 2008 IRS Static Mortality projected five (5) years with Scale AA to the 2013 IRS Static Mortality projected five (5) years with Scale AA.

## SECTION II - FUNDING

### C. Actuarial Accrued Liability Reconciliation

|    |  |    |                               |                                |  |
|----|--|----|-------------------------------|--------------------------------|--|
| 1. | June 30, 2011 Actuarial Accrued Liability                                    | \$ | 400,273,544                   |                                |  |
| 2. | Normal Cost  |    | 15,281,754                    |                                |  |
| 3. | Actual Benefit Payments  |    | 16,746,050                    |                                |  |
| 4. | Interest of 7.0% on (1) + (2) - (3)/2  |    | <u>28,502,759</u>             |                                |  |
| 5. | Expected June 30, 2012 Actuarial Accrued Liability:<br>(1) + (2) - (3) + (4) | \$ | 427,312,007                   |                                |  |
|    |  |    | Dollar Change<br>in Liability | Percent Change<br>in Liability |  |
| 6. | (Gain)/Loss Components   |    |                               |                                |  |
| a. | Census   | \$ | 707,995                       | 0.2%                           |  |
| b. | Cost-of-Living Adjustment <sup>1</sup>                                       |    | (7,143,624)                   | (1.7%)                         |  |
| c. | Assumption Changes <sup>2</sup>  |    | <u>16,978,081</u>             | <u>4.0%</u>                    |  |
| d. | Total: (6)(a) + (6)(b) + (6)(c)  | \$ | 10,542,452                    | 2.5%                           |  |
| 7. | Actual June 30, 2012 Actuarial Accrued Liability: (5) + (6)(d)               | \$ | <b>437,854,459</b>            |                                |  |

<sup>1</sup> A Cost-of-Living Adjustment (COLA) of 2.2% was effective as of July 1, 2012, rather than the assumed COLA of 4.0%.

<sup>2</sup> Assumption changes include the change in discount rate from 7.0% to 6.75% and change in mortality table from the 2008 IRS Static Mortality projected five (5) years with Scale AA to the 2013 IRS Static Mortality projected five (5) years with Scale AA.

## SECTION II - FUNDING

### D. Reconciliation of Market Value of Assets

|  | <u>June 30, 2011</u>  | <u>June 30, 2012</u>  |
|--|-----------------------|-----------------------|
| 1. Market Value of Assets, Prior June 30                               | \$ 208,395,238        | \$ 256,985,753        |
| 2. Receipts  |                       |                       |
| a. Employer Contributions  | \$ 19,199,927         | 18,896,172            |
| b. Member Contributions  | 3,491,929             | 2,467,769             |
| c. Investment Income and Dividends Net of Fees                         | 40,732,132            | 506,778               |
| d. Security Lending Income Net of Fees                                 | 138,032               | 87,656                |
| e. Transfers In  | 1,280,746             | 257,237               |
| f. Miscellaneous Receipts  | -                     | 1,593                 |
| g. Total Receipts: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) | \$ 64,842,766         | \$ 22,217,205         |
| 3. Disbursements   |                       |                       |
| a. Benefits Paid During the Year                                       | \$ 16,087,428         | \$ 16,727,365         |
| b. Refund of Contributions and Interest                                | 5,293                 | 18,685                |
| c. Administrative and Project Expenses                                 | 159,530               | 131,226               |
| d. Transfers Out   | -                     | -                     |
| e. Miscellaneous Disbursements   | -                     | -                     |
| f. Total Disbursements: (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)     | \$ 16,252,251         | \$ 16,877,276         |
| 4. Market Value of Assets, Current June 30: (1) + (2)(g) - (3)(f)      | \$ <b>256,985,753</b> | \$ <b>262,325,682</b> |
| 5. Market Value of Assets Approximate Annual Rate of Investment Return | 19.2%                 | 0.2%                  |

## SECTION II - FUNDING

### E. Reconciliation of Actuarial Value of Assets

|     |  |                    |                       |    |                    |
|-----|--|--------------------|-----------------------|----|--------------------|
| 1.  | Market Value of Assets, June 30, 2011  |                    |                       | \$ | 256,985,753        |
| 2.  | Market Value of Assets, June 30, 2012  |                    |                       |    | 262,325,682        |
| 3.  | Expected Earnings/Expenses   |                    |                       |    |                    |
| a.  | Expected Investment Earnings at 7.0% on June 30, 2011 Market Value                   |                    |                       |    | 17,989,003         |
| b.  | Expected Receipts and Investment Earnings at 7.0%                                    |                    |                       |    | 22,379,568         |
| c.  | Expected Disbursements and Investment Expenses at 7.0%                               |                    |                       |    | 17,332,162         |
| 4.  | Expected Assets, June 30, 2012: (1) + (3)(a) + (3)(b) - (3)(c)                       |                    |                       | \$ | 280,022,162        |
| 5.  | 2011-2012 Gain/(Loss): (2) - (4)   |                    |                       |    | (17,696,480)       |
| 6.  | Smoothing of Gain/(Loss)   |                    |                       |    |                    |
|     | <u>Year</u>  | <u>Gain/(Loss)</u> | <u>% Unrecognized</u> |    |                    |
| a.  | 2011-2012  | \$ (17,696,480)    | 75%                   |    | (13,272,360)       |
| b.  | 2010-2011  | 25,847,171         | 50%                   |    | 12,923,586         |
| c.  | 2009-2010  | 10,312,197         | 25%                   |    | 2,578,049          |
| 7.  | Preliminary Actuarial Value of Assets, June 30, 2012: (2) - (6)(a) - (6)(b) - (6)(c) |                    |                       | \$ | 260,096,407        |
| 8.  | Corridor   |                    |                       |    |                    |
| a.  | 120% of Market Value   |                    |                       |    | 314,790,818        |
| b.  | 80% of Market Value  |                    |                       |    | 209,860,546        |
| 9.  | Actuarial Value of Assets, June 30, 2012   |                    |                       | \$ | <b>260,096,407</b> |
| 10. | Actuarial Value of Assets as a Percent of Market Value: (9) / (2)                    |                    |                       |    | 99.2%              |
| 11. | Actuarial Value of Assets Approximate Annual Rate of Investment Return               |                    |                       |    | 2.6%               |



## SECTION II - FUNDING

### F. Contribution Rate

|   | <u>June 30, 2011</u>              | <u>June 30, 2012</u> |
|---|-----------------------------------|----------------------|
| <b>Development of Annual Required Contribution:</b>   |                                   |                      |
| 1. Current Payroll  | \$ 45,764,278                     | \$ 45,138,370        |
| 2. Normal Cost (Beginning of Year)  |                                   |                      |
| a. Amount   | \$ 15,281,754                     | \$ 16,084,590        |
| b. Percentage of Payroll  | 33.39%                            | 35.64%               |
| 3. Unfunded Actuarial Accrued Liability (UAAL) Annual Amortizations                                 |                                   |                      |
| a. Amount   | \$ 11,873,696                     | \$ 13,705,127        |
| b. Percentage of Payroll  | 25.95%                            | 30.36%               |
| 4. Expected Employee Contributions <sup>1</sup>   |                                   |                      |
| a. Amount   | \$ 2,678,007                      | \$ 2,684,888         |
| b. Percentage of Payroll  | 5.85%                             | 5.95%                |
| 5. Annual Required Contribution Rate: (2)(b) + (3)(b) - (4)(b)                                      | <b>53.49%</b>                     | <b>60.05%</b>        |
| 6. Estimated Annual Required Contribution Amount  |                                   |                      |
| a. Fiscal Year Beginning  | July 1, 2012                      | July 1, 2013         |
| b. Anticipated Payroll: (1) x [(1 + 4.0%)]  | \$ 47,594,849                     | \$ 46,943,905        |
| c. Amount: (5) x (6)(b) <sup>2,3</sup>  | <b>\$ 25,458,485</b>              | <b>\$ 28,189,815</b> |
| <b>Development of Funding Rate:</b>   |                                   |                      |
| 7. Contribution received after June 30, 2012 pursuant to HB 1376                                    |                                   | 90,187,160           |
| 8. UAAL Amortization Assuming HB 1376 Contribution is included in June 30, 2012 Assets <sup>4</sup> |                                   |                      |
| a. Amount   |                                   | 6,692,263            |
| b. Percentage of Payroll  |                                   | 14.82%               |
| 9. Funding Rate Reflecting HB 1376: (2)(b) - (4)(b) + (8)(b)  |                                   | 44.51%               |
| 10. Estimated Funding Amount Reflecting HB 1376: (9) x (6)(b)                                       |                                   | \$ 20,894,732        |
| <b>Approved Funding Amount:</b>   | <b>\$ 21,228,000 <sup>5</sup></b> | <b>\$ 20,894,732</b> |

<sup>1</sup> Only members with less than 22 years of service contribute to the plan. Current payroll for active members with less than 22 years of service as of June 30, 2012 is \$44,748,130.

<sup>2</sup> Since the fiscal year to which contributions apply begins one year after the valuation date, the Annual Required Contribution Amount is estimated by assuming payroll will increase 4.0% per year and then applying the Annual Required Contribution Rate computed at the valuation date.

<sup>3</sup> JRS is a State appropriated fund. Employer contribution amounts are expected to be paid by the State of Indiana.

<sup>4</sup> Reduction in funding rate if \$90,187,160 of contributions received after June 30, 2012 pursuant to HB 1376 are included in assets as of June 30, 2012 and existing UAAL bases are reduced ratably due to the excess contribution.

<sup>5</sup> Does not reflect \$90,187,160 of contributions received after June 30, 2012 pursuant to HB 1376.

## SECTION II - FUNDING

### G. Unfunded Actuarial Accrued Liability Amortization Schedule <sup>1</sup>

|    | <u>Date Base<br/>Established</u> | <u>Reason</u>   | <u>Remaining<br/>Unfunded</u> | <u>Remaining<br/>Period</u> | <u>Amortization<br/>Amount</u> |
|----|----------------------------------|---|-------------------------------|-----------------------------|--------------------------------|
| 1. | 6/30/2009                        | Actuarial Experience                                      | \$ 85,775,346                 | 24                          | \$ 6,852,744                   |
| 2. | 6/30/2010                        | Actuarial Experience and Changes in Actuarial Assumptions | 32,803,846                    | 28                          | \$ 2,471,057                   |
| 3. | 6/30/2011                        | Actuarial Experience and Changes in Actuarial Assumptions | 30,981,653                    | 29                          | \$ 2,305,902                   |
| 4. | 6/30/2012                        | Actuarial Experience and Changes in Actuarial Assumptions | <u>28,197,207</u>             | 30                          | <u>\$ 2,075,424</u>            |
|    | Total                            |   | \$ 177,758,052                |                             | \$ 13,705,127                  |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## SECTION II - FUNDING

### H. Approximate Investment Return for Year Ending June 30, 2012

|   | <u>Market Value of Assets</u> | <u>Actuarial Value of Assets</u> |
|---|-------------------------------|----------------------------------|
| 1. Balance, beginning of year                         | \$ 256,985,753                | \$ 248,623,357                   |
| 2. Balance, end of year                               | 262,325,682                   | 260,096,407                      |
| 3. Total increase: (2) - (1)                          | 5,339,929                     | 11,473,050                       |
| 4. Contributions and Transfers In                     | 21,622,771                    | 21,622,771                       |
| 5. Benefit payments and Transfers Out                 | 16,746,050                    | 16,746,050                       |
| 6. Net additions: (4) - (5)                           | 4,876,721                     | 4,876,721                        |
| 7. Net investment increase: (3) - (6)                 | 463,208                       | 6,596,329                        |
| 8. Average assets: [(1) + (2)] / 2                    | 259,424,114                   | 251,061,718                      |
| 9. Approximate rate of return: (7) / (8) <sup>1</sup> | 0.2%                          | 2.6%                             |

### I. Historical Investment Experience

| 1.<br>Year Ending June 30 | 2.<br><u>Approximate Annual Rate of Investment Return</u> | 3.<br><u>Actuarial Basis</u> | 4.<br><u>Actuarial Assumed Interest Rate</u> |
|---------------------------|---|------------------------------|--|
|                           | <u>Market Basis</u>                                       |                              |  |
| 2003                      | 5.3%  | (1.0%)                       |  |
| 2004                      | 16.1%   | 3.3%                         |  |
| 2005                      | 9.6%  | 7.0%                         |  |
| 2006                      | 10.5%   | 15.1%                        |  |
| 2007                      | 18.0%   | 15.8%                        | 7.25%  |
| 2008                      | (8.2%)  | 8.3%                         | 7.25%  |
| 2009                      | (21.7%)   | (1.0%)                       | 7.25%  |
| 2010                      | 12.9%   | (1.7%)                       | 7.25%  |
| 2011                      | 19.2%   | (0.6%)                       | 7.0%   |
| 2012                      | 0.2%  | 2.6%                         | 7.0%   |

<sup>1</sup> Net of expenses.

## SECTION II - FUNDING

### K. Interest Rate Sensitivity

The investment return assumption (discount rate), as required by GASB, should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments. Management and the Board continually monitor the investment rate of return assumption and the Board formally reviews the assumption and makes changes as appropriate. The Board changed the assumption for the June 30, 2012 valuation from 7.0% to 6.75%.

To illustrate the importance of the investment rate of return, which is used to discount the actuarial liabilities of the Plan, the funded status and ARC Rate (for the fiscal year beginning July 1, 2013) are shown below at 6.75% (the current assumption), 6.0% (a three-fourths of a percent decrease), 6.5% (a one-fourth of a percent decrease), 7.5% (a three-fourths of a percent increase), and 8.0% (a one and one-fourth of a percent increase).

|   | 0.75%<br>Decrease:<br>(6.0%) | 0.25%<br>Decrease:<br>(6.5%) | Current<br>Assumption:<br>(6.75%) | 0.75%<br>Increase:<br>(7.5%) | 1.25%<br>Increase:<br>(8.0%) |
|---|------------------------------|------------------------------|-----------------------------------|------------------------------|------------------------------|
| <b><u>Funded Status</u></b>                     |                              |                              |                                   |                              |                              |
| Actuarial Accrued Liability                     | 478,012,136                  | 450,640,101                  | 437,854,459                       | 402,722,114                  | 381,710,956                  |
| Actuarial Value of Assets                       | <u>260,096,407</u>           | <u>260,096,407</u>           | <u>260,096,407</u>                | <u>260,096,407</u>           | <u>260,096,407</u>           |
| Unfunded Actuarial Accrued Liability            | \$217,915,729                | \$190,543,694                | \$177,758,052                     | \$142,625,707                | \$121,614,549                |
| Funded Ratio                                    | 54.4%                        | 57.7%                        | 59.4%                             | 64.6%                        | 68.1%                        |
| <b><u>Annual Required Contribution Rate</u></b> |                              |                              |                                   |                              |                              |
| Normal Cost Percentage                          | 41.29%                       | 37.40%                       | 35.64%                            | 30.94%                       | 28.24%                       |
| UAAL Amortization Percentage                    | 34.54%                       | 31.76%                       | 30.36%                            | 26.18%                       | 23.40%                       |
| Expected Employee Contribution Percentage       | <u>5.95%</u>                 | <u>5.95%</u>                 | <u>5.95%</u>                      | <u>5.95%</u>                 | <u>5.95%</u>                 |
| Annual Required Contribution Percentage         | 69.88%                       | 63.21%                       | 60.05%                            | 51.17%                       | 45.69%                       |

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## SECTION III - ACCOUNTING

### **ACCOUNTING**

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### SECTION III - ACCOUNTING

#### **REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27**

##### **A. Assumptions and Methods Under GASB #25 and #27**

Under the Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 27, as amended by GASB No. 50, certain information about the plan is required to be disclosed. The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

|                           |  |
|---------------------------|--|
| Valuation Date            | June 30, 2012                                  |
| Actuarial Cost Method     | Entry Age Normal (Level Percent of Payroll)    |
| Amortization Method       | Level Dollar                                   |
| Amortization Period       | 30 Years, Closed                               |
| Actuarial Value of Assets | 4-Year Smoothed Market Value with 20% Corridor |
| Actuarial Assumptions:    |  |
| Investment Rate of Return | 6.75%  |
| Future Salary Increases   | 4.0% (includes 3.0% wage inflation)            |
| Cost-of-Living Increases  | 4.0% (tied to salary scale)                    |

##### **B. Membership Data**

The plan consisted of the following membership as of June 30, 2012, the date of the latest actuarial valuation:

|   |            |
|---|------------|
| Retired members, beneficiaries and disabled members receiving benefits:         | 311        |
| Terminated vested plan members entitled to but not yet receiving benefits:      | 72         |
| Terminated non-vested plan members entitled to a distribution of contributions: | 28         |
| Active Plan Members:  | <u>361</u> |
| Total membership:   | 772        |

### SECTION III - ACCOUNTING

#### **REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

##### **C. Statement of Fiduciary Net Position**

|  |                       |
|--|-----------------------|
| 1. Assets  |                       |
| a. Cash  | \$ 105,494            |
| b. Securities Lending Collateral   | 11,915,331            |
| c. Receivables   |                       |
| i. Contributions Receivable  | \$ 98,539             |
| ii. Miscellaneous Receivables  | 48,549                |
| iii. Investments Receivable  | -                     |
| iv. Interest and Dividends   | -                     |
| v. Due From Other Funds  | -                     |
| vi. Total Receivables  | <u>\$ 147,088</u>     |
| d. Total Investments   | 262,113,191           |
| e. Net Capital Assets  | <u>3,768</u>          |
| f. Total Assets: (1)(a) + (1)(b) + (1)(c)(vi) + (1)(d) + (1)(e)                    | <u>\$ 274,284,872</u> |
| 2. Liabilities   |                       |
| a. Accounts Payable  | \$ 16,978             |
| b. Retirement Benefits Payable   | -                     |
| c. Salaries and Benefits Payable   | -                     |
| d. Investments Payable   | -                     |
| e. Securities Lending Obligations  | 11,915,331            |
| f. Securities Sold Under Agreement to Repurchase                                   | -                     |
| g. Due To Other Funds  | <u>26,881</u>         |
| h. Total Liabilities: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) + (2)(g) | <u>\$ 11,959,190</u>  |
| 3. Net Assets Held in Trust for Pension Benefits: (1)(f) - (2)(h)                  | <b>\$ 262,325,682</b> |

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

**D. Statement of Changes in Fiduciary Net Position**

|      |   |    |             |
|------|---|----|-------------|
| 1.   | Net Assets as of June 30, 2011  | \$ | 256,985,753 |
| 2.   | Revenue (Additions)   |    |             |
| a.   | Contributions   |    |             |
| i.   | Member Contributions  | \$ | 2,467,769   |
| ii.  | Employer Contributions  |    | 18,896,172  |
| iii. | Other Contributions   |    | -           |
| iv.  | Total Contributions   | \$ | 21,363,941  |
| b.   | Investment Income/Loss  |    |             |
| i.   | Investment Income/Loss  | \$ | 1,749,560   |
| ii.  | Securities Lending Income   |    | 93,538      |
| iii. | Securities Lending Expenses   |    | (5,882)     |
| iv.  | Other Investment Expenses   |    | (1,242,782) |
| v.   | Net Investment Income   | \$ | 594,434     |
| c.   | Other Additions   |    |             |
| i.   | Interfund Transfers   | \$ | 257,237     |
| ii.  | Miscellaneous Receipts  |    | 1,593       |
| iii. | Total Other Additions   | \$ | 258,830     |
| d.   | Total Revenue (Additions): (2)(a)(iv) + (2)(b)(v) + (2)(c)(iii)                           | \$ | 22,217,205  |
| 3.   | Expenses (Deductions)   |    |             |
| a.   | Pension and Disability Benefits   | \$ | 16,727,365  |
| b.   | Death, Survivor, and Funeral Benefits   |    | -           |
| c.   | Distributions of Contributions and Interest   |    | 18,685      |
| d.   | Interfund Transfers   |    | -           |
| e.   | Pensions Relief Distributions   |    | -           |
| f.   | Local Unit Withdrawals  |    | -           |
| g.   | Administrative and Project Expenses   |    | 131,226     |
| h.   | Total Expenses (Deductions): (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e) + (3)(f) + (3)(g) | \$ | 16,877,276  |
| 4.   | Changes in Net Assets Held in Trust for Pension Benefits: (2)(d) - (3)(h)                 | \$ | 5,339,929   |
| 5.   | Net Assets as of June 30, 2012: (1) + (4)   | \$ | 262,325,682 |



### SECTION III - ACCOUNTING

#### **REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

##### **E. Schedule of Funding Progress**<sup>1</sup>

| 1.<br>Actuarial<br>Valuation<br>Date June 30 | 2.<br>Actuarial<br>Value of Assets | 3.<br>Actuarial Accrued<br>Liability (AAL) | 4.<br>Unfunded Actuarial<br>Accrued Liability (UAAL)<br>(3) - (2) | 5.<br>AAL Funded<br>Ratio<br>(2) / (3) | 6.<br>Current<br>Payroll | 7.<br>UAAL as a<br>% of Payroll<br>(4) / (6) |
|--|------------------------------------|--|---|--|--------------------------|--|
| 2007   | \$ 211,746,513                     | \$ 283,995,165                             | \$ 72,248,652   | 74.6%                                  | \$ 29,712,252            | 243.2%                                       |
| 2008   | 234,880,522                        | 338,748,983                                | 103,868,461   | 69.3%                                  | 33,729,411               | 307.9%                                       |
| 2009   | 240,953,881                        | 330,551,207                                | 89,597,326  | 72.9%                                  | 36,195,775               | 247.5%                                       |
| 2010   | 242,142,843                        | 364,122,731                                | 121,979,888   | 66.5%                                  | 36,721,919               | 332.2%                                       |
| 2011   | 248,623,357                        | 400,273,544                                | 151,650,187   | 62.1%                                  | 45,764,278               | 331.4%                                       |
| 2012   | 260,096,407                        | 437,854,459                                | 177,758,052   | 59.4%                                  | 45,138,370               | 393.8%                                       |

##### **F. Schedule of Employer Contributions**<sup>1</sup>

| 1.<br>Year Ending<br>June 30 | 2.<br>Annual Required<br>Contribution (ARC) <sup>2</sup> | 3.<br>Actual<br>Employer Contribution | 4.<br>% of ARC<br>(3) / (2) |
|------------------------------|--|---------------------------------------|-----------------------------|
| 2007                         | \$ 12,249,490  | \$ 14,661,552                         | 119.7%                      |
| 2008                         | 10,028,371   | 15,920,268                            | 158.8%                      |
| 2009                         | 16,131,121   | 20,861,106                            | 129.3%                      |
| 2010                         | 16,076,869   | 18,630,651                            | 115.9%                      |
| 2011                         | 18,909,921   | 19,199,927                            | 101.5%                      |
| 2012                         | 19,664,441   | 18,896,172                            | 96.1%                       |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> Starting with the year ending June 30, 2012, the ARC amount shown is based on the ARC Rate developed in the actuarial valuation completed one year prior to the beginning of the year multiplied by projected payroll.

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

**G. Development of Net Pension Obligation (NPO)**

| 1.<br>Year<br>Ending<br>June 30 | 2.<br>Annual<br>Required<br>Contribution (ARC) | 3.<br>Interest<br>on NPO at<br>Discount Rate | 4.<br>ARC<br>Adjustment<br>(9) / (5) | 5.<br>Amortization<br>Factor | 6.<br>Net Pension<br>Cost (NPC)<br>(2) + (3) - (4) | 7.<br>Actual<br>Employer<br>Contribution | 8.<br>Change<br>in NPO<br>(6) - (7) | 9.<br>NPO at<br>Beginning<br>of Year | 10.<br>NPO at<br>End of Year<br>(8) + (9) |
|---------------------------------|--|--|--------------------------------------|------------------------------|--|--|-------------------------------------|--------------------------------------|---|
| 2010                            | \$ 16,076,869                                  | \$ (1,870,282)                               | \$ (2,203,196)                       | 11.7089                      | \$ 16,409,783                                      | \$ 18,630,651                            | \$ (2,220,868)                      | (25,796,998)                         | \$ (28,017,866)                           |
| 2011                            | 18,909,921                                     | (1,961,250)                                  | (2,257,866)                          | 12.4090                      | 19,206,537   | 19,199,927                               | 6,610                               | (28,017,866)                         | (28,011,256)                              |
| 2012                            | 19,664,441                                     | (1,960,788)                                  | (2,257,334)                          | 12.4090                      | 19,960,987   | 18,896,172                               | 1,064,815                           | (28,011,256)                         | (26,946,441)                              |

**H. Three-Year Trend Information**

| 1.<br>Year<br>Ending<br>June 30 | 2.<br>Net Pension<br>Cost (NPC) | 3.<br>Actual<br>Employer<br>Contribution | 4.<br>% of NPC<br>(3) / (2) |
|---------------------------------|---------------------------------|--|-----------------------------|
| 2010                            | \$ 16,409,783                   | \$ 18,630,651                            | 113.5%                      |
| 2011                            | 19,206,537                      | 19,199,927                               | 100.0%                      |
| 2012                            | 19,960,987                      | 18,896,172                               | 94.7%                       |

## SECTION III - ACCOUNTING

### I. Solvency Test <sup>1</sup>

Portion of Actuarial Liability Provided by Assets  
(\$ in Thousands)

| 1.<br>As of<br>June 30 | 2.<br>ASA<br>Balances | 3.<br>Retired and<br>Beneficiaries | 4.<br>Non-Retired<br>Members (Employer<br>Financed Portion) | 5.<br>Total Actuarial<br>Accrued<br>Liabilities | 6.<br>Actuarial Value<br>of Assets |
|------------------------|-----------------------|------------------------------------|---|---|------------------------------------|
| 2007                   | 21,276,000<br>100.0%  | 143,645,324<br>100.0%              | 119,073,841<br>39.3%  | 283,995,165<br>74.6%                            | 211,746,513                        |
| 2008                   | 22,243,000<br>100.0%  | 155,177,081<br>100.0%              | 161,328,902<br>35.6%  | 338,748,983<br>69.3%                            | 234,880,522                        |
| 2009                   | 21,649,000<br>100.0%  | 170,962,026<br>100.0%              | 137,940,181<br>35.0%  | 330,551,207<br>72.9%                            | 240,953,881                        |
| 2010                   | 23,137,615<br>100.0%  | 182,023,263<br>100.0%              | 158,961,853<br>23.3%  | 364,122,731<br>66.5%                            | 242,142,843                        |
| 2011                   | 24,359,001<br>100.0%  | 198,796,748<br>100.0%              | 177,117,795<br>14.4%  | 400,273,544<br>62.1%                            | 248,623,357                        |
| 2012                   | 27,699,555<br>100.0%  | 205,340,787<br>100.0%              | 204,814,117<br>13.2%  | 437,854,459<br>59.4%                            | 260,096,407                        |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

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## SECTION IV - CENSUS DATA

### **CENSUS DATA**

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SECTION IV - CENSUS DATA

**A. Reconciliation of Participant Data**

|                               | <u>Actives</u> | <u>Inactive Non-Vested<br/>With Member<br/>Contribution Balance</u> | <u>Inactive Vested</u> | <u>Disabled</u> | <u>Retired</u> | <u>Beneficiary</u> | <u>Total</u> |
|-------------------------------|----------------|---|------------------------|-----------------|----------------|--------------------|--------------|
| PwC Total as of June 30, 2011 | 363            | 31  | 66                     | 1               | 214            | 95                 | 770          |
| New Entrants                  | 13             | -   | -                      | -               | -              | -                  | 13           |
| Rehires                       | -              | -   | -                      | -               | -              | -                  | -            |
| Non-Vested Terminations       | -              | -   | -                      | -               | -              | -                  | -            |
| Vested Terminations           | (10)           | -   | 10                     | -               | -              | -                  | -            |
| Retirements                   | (1)            | -   | (4)                    | -               | 5              | -                  | -            |
| Disablements                  | (1)            | (1)   | -                      | 2               | -              | -                  | -            |
| Death with Beneficiary        | -              | -   | -                      | -               | (7)            | 7                  | -            |
| Death without Beneficiary     | -              | -   | -                      | -               | (1)            | (5)                | (6)          |
| Refunds                       | (1)            | (2)   | -                      | -               | -              | -                  | (3)          |
| Data Adjustments              | <u>(2)</u>     | <u>-</u>  | <u>-</u>               | <u>-</u>        | <u>(1)</u>     | <u>1</u>           | <u>(2)</u>   |
| Total as of June 30, 2012     | 361            | 28  | 72                     | 3               | 210            | 98                 | 772          |

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## SECTION IV - CENSUS DATA

### B. Census Information

|                                       | <u>June 30, 2011</u> | <u>June 30, 2012</u> |
|---------------------------------------|----------------------|----------------------|
| 1. Active                             |                      |                      |
| a. Number                             | 363                  | 361                  |
| b. Average Age                        | 54.3                 | 54.9                 |
| c. Average Years of Service           | 8.3                  | 8.9                  |
| d. Covered Payroll of Actives         | \$ 45,764,278        | \$ 45,138,370        |
| 2. Inactive - Vested                  |                      |                      |
| a. Number                             | 66                   | 72                   |
| b. Average Age                        | 61.0                 | 61.1                 |
| c. Average Years of Service           | 18.1                 | 18.6                 |
| 3. Inactive - Non-Vested <sup>1</sup> |                      |                      |
| a. Number                             | 31                   | 28                   |
| 4. Retiree/Beneficiary/Disabled       |                      |                      |
| a. Number                             | 310                  | 311                  |
| b. Average Age                        | 75.1                 | 75.4                 |
| c. Annual Benefits Payable            | \$ 16,787,212        | \$ 17,027,599        |

<sup>1</sup> For June 30, 2012, inactive non-vested members entitled to a refund of their member contributions totaling \$439,300.

## SECTION IV - CENSUS DATA

### **C. Schedule of Active Member Valuation Data**<sup>1</sup>

| 1.<br>As of<br>June 30 | 2.<br>Active<br>Members | 3.<br>Annual<br>Payroll<br>(\$ in Thousands) | 4.<br>Average<br>Pay<br>(3) / (2) | 5.<br>Annual<br>Percent<br>Increase |
|------------------------|-------------------------|--|-----------------------------------|-------------------------------------|
| 2005                   | 282                     | \$ 32,231                                    | \$ 114,293                        | 22.3%                               |
| 2006                   | 274                     | 34,065                                       | 124,323                           | 8.8%                                |
| 2007                   | 258                     | 29,712                                       | 115,164                           | (7.4%)                              |
| 2008                   | 267                     | 33,729                                       | 126,327                           | 9.7%                                |
| 2009                   | 288                     | 36,196                                       | 125,680                           | (0.5%)                              |
| 2010                   | 291                     | 36,722                                       | 126,192                           | 0.4%                                |
| 2011                   | 363                     | 45,764                                       | 126,072                           | (0.1%)                              |
| 2012                   | 361                     | 45,138                                       | 125,037                           | (0.8%)                              |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION IV - CENSUS DATA

**D. Schedule of Retirees, Beneficiaries, and Disabled Members**<sup>1</sup>

| 1.                     | 2.     | 3.  | 4.      | 5.  | 6.                       | 7.  | 8.                                    | 9.                              |
|------------------------|--------|---|---------|---|--------------------------|---|---------------------------------------|---------------------------------|
|                        | Added  |   | Removed |   | End of Year <sup>2</sup> |   |                                       |                                 |
| Year Ending<br>June 30 | Number | Annual<br>Allowances<br>(\$ in Thousands) | Number  | Annual<br>Allowances<br>(\$ in Thousands) | Number                   | Annual<br>Allowances<br>(\$ in Thousands) | % Increase in<br>Annual<br>Allowances | Average<br>Annual<br>Allowances |
| 2005                   | 13     | \$ 667                                    | 11      | \$ 374                                    | 264                      | \$ 12,272                                 | 24.5%                                 | \$ 46,485                       |
| 2006                   | 12     | 868                                       | 7       | 474                                       | 269                      | 12,983                                    | 5.8%                                  | 48,266                          |
| 2007                   | 18     | 976                                       | 8       | 409                                       | 279                      | 13,899                                    | 7.1%                                  | 49,819                          |
| 2008                   | 23     | 1,257                                     | 26      | 991                                       | 276                      | 14,754                                    | 6.1%                                  | 53,455                          |
| 2009                   | 74     | 3,744                                     | 57      | 1,835                                     | 293                      | 15,230                                    | 3.2%                                  | 51,978                          |
| 2010                   | 11     | 627                                       | 6       | 339                                       | 298                      | 15,390                                    | 1.1%                                  | 51,644                          |
| 2011                   | 21     | 1,452                                     | 9       | 200                                       | 310                      | 16,787                                    | 9.1%                                  | 54,152                          |
| 2012                   | 7      | 444                                       | 6       | 194                                       | 311                      | 17,028                                    | 1.4%                                  | 54,751                          |

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> End of year annual allowances are not equal to the prior end of year annual allowances plus addition and less removals because of reductions for beneficiary benefits, data changes, and cost-of-living increases.



SECTION IV - CENSUS DATA

**E. Distribution of Active Members by Age and Service**

| <b>Attained<br/>Age</b> | Distribution of Active Members by Age and Service as of June 30, 2012 |              |              |                |                |                |                |                |                |               |       |
|-------------------------|---|--------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------|
|                         | Under 1 year  | 1 to 4 years | 5 to 9 years | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | Over 40 years | Total |
| <25                     |   |              |              |                |                |                |                |                |                |               |       |
| 25-29                   |   |              |              |                |                |                |                |                |                |               |       |
| 30-34                   |   |              | 1            |                |                |                |                |                |                |               | 1     |
| 35-39                   | 2   | 8            | 4            |                |                |                |                |                |                |               | 14    |
| 40-44                   | 2   | 25           | 8            | 2              |                |                |                |                |                |               | 37    |
| 45-49                   | 2   | 16           | 19           | 6              | 1              |                |                |                |                |               | 44    |
| 50-54                   | 1   | 27           | 19           | 17             | 1              |                |                |                |                |               | 65    |
| 55-59                   |   | 16           | 24           | 17             | 22             | 5              |                |                |                |               | 84    |
| 60-64                   | 1   | 12           | 20           | 15             | 13             | 10             |                |                |                |               | 71    |
| 65-69                   |   | 5            | 7            | 12             | 6              | 4              |                |                |                |               | 34    |
| 70&Up                   | 1   |              | 4            | 2              | 3              | 1              |                |                |                |               | 11    |
| Total                   | 9   | 109          | 106          | 71             | 46             | 20             |                |                |                |               | 361   |

SECTION IV - CENSUS DATA

**F. Distribution of Inactive Vested Members by Age and Service**

| <b>Attained<br/>Age</b> | Distribution of Inactive Vested Members by Age and Service as of June 30, 2012 |              |                |                |                |                |               | Total |
|-------------------------|--|--------------|----------------|----------------|----------------|----------------|---------------|-------|
|                         | Under 5 years  | 5 to 9 years | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | Over 30 years |       |
| <25                     |  |              |                |                |                |                |               |       |
| 25-29                   |  |              |                |                |                |                |               |       |
| 30-34                   |  |              |                |                |                |                |               |       |
| 35-39                   |  |              |                |                |                |                |               |       |
| 40-44                   |  |              |                |                |                |                |               |       |
| 45-49                   |  |              | 2              | 1              | 1              |                |               | 4     |
| 50-54                   |  | 2            | 5              |                | 2              |                |               | 9     |
| 55-59                   |  | 1            | 2              | 3              | 9              |                |               | 15    |
| 60-64                   |  | 1            | 3              | 6              | 12             | 1              |               | 23    |
| 65-69                   |  | 1            | 1              | 2              | 8              |                |               | 12    |
| 70&Up                   |  |              |                |                | 9              |                |               | 9     |
| Total                   |  | 5            | 13             | 12             | 41             | 1              |               | 72    |

SECTION IV - CENSUS DATA

**G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired <sup>1</sup>**

| Attained Age | Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of June 30, 2012 |              |                |                |                |                |               |       |
|--------------|---|--------------|----------------|----------------|----------------|----------------|---------------|-------|
|              | Under 5 years   | 5 to 9 years | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | Over 30 years | Total |
| <40          |   |              |                |                |                |                |               |       |
| 40-44        |   |              |                |                |                |                |               |       |
| 45-49        |   |              |                |                |                |                |               |       |
| 50-54        |   |              |                |                |                |                |               |       |
| 55-59        | 2   |              |                |                |                |                |               | 2     |
| 60-64        | 27  |              |                |                |                |                |               | 27    |
| 65-69        | 45  | 22           |                | 2              |                |                | 1             | 70    |
| 70-74        | 11  | 22           | 13             |                |                |                |               | 46    |
| 75-79        | 4   | 6            | 33             | 12             |                | 1              | 2             | 58    |
| 80-84        | 1   | 2            | 4              | 17             | 3              | 2              | 1             | 30    |
| 85-89        |   | 1            | 3              | 5              | 19             | 8              | 2             | 38    |
| 90&Up        |   |              |                | 4              | 6              | 9              | 21            | 40    |
| Total        | 90  | 53           | 53             | 40             | 28             | 20             | 27            | 311   |

<sup>1</sup> Seven of the members do not have a date of retirement. For these members we assumed they retired at the earlier of June 30, 2012 and 65.

## SECTION IV - CENSUS DATA

### **H. Schedule of Benefit Recipients by Type of Benefit Option**

| 1977 System  |                                |   |           |          |       |  |
|--|--------------------------------|---|-----------|----------|-------|--|
| Number of Benefit Recipients by Benefit Option as of June 30, 2012 |                                |   |           |          |       |  |
| Amount of<br>Monthly<br>Benefit                                    | Retiree Single<br>Life Annuity | Retiree 50%<br>Joint and<br>Survivor<br>Annuity | Survivors | Disabled | Total |  |
| \$ 1 - 500   | 0                              | 0   | 0         | 0        | 0     |  |
| 501 - 1,000  | 0                              | 0   | 0         | 0        | 0     |  |
| 1,001 - 1,500  | 0                              | 0   | 34        | 0        | 34    |  |
| 1,501 - 2,000  | 1                              | 0   | 11        | 0        | 12    |  |
| 2,001 - 3,000  | 3                              | 7   | 23        | 0        | 33    |  |
| over 3,000   | 14                             | 126   | 14        | 0        | 154   |  |
| Total  | 18                             | 133   | 82        | 0        | 233   |  |

| 1985 System  |                                |   |           |          |       |  |
|--|--------------------------------|---|-----------|----------|-------|--|
| Number of Benefit Recipients by Benefit Option as of June 30, 2012 |                                |   |           |          |       |  |
| Amount of<br>Monthly<br>Benefit                                    | Retiree Single<br>Life Annuity | Retiree 50%<br>Joint and<br>Survivor<br>Annuity | Survivors | Disabled | Total |  |
| \$ 1 - 500   | 0                              | 0   | 0         | 0        | 0     |  |
| 501 - 1,000  | 0                              | 0   | 0         | 0        | 0     |  |
| 1,001 - 1,500  | 0                              | 0   | 4         | 0        | 4     |  |
| 1,501 - 2,000  | 0                              | 1   | 4         | 0        | 5     |  |
| 2,001 - 3,000  | 0                              | 1   | 6         | 0        | 7     |  |
| over 3,000   | 1                              | 56  | 2         | 3        | 62    |  |
| Total  | 1                              | 58  | 16        | 3        | 78    |  |

SECTION IV - CENSUS DATA

**I. Schedule of Average Benefit Payments as of June 30, 2012 <sup>1</sup>**

| 1977 Plan                       |                           |            |            |            |            |            |            |    |       |    |         |
|---------------------------------|---------------------------|------------|------------|------------|------------|------------|------------|----|-------|----|---------|
|                                 | Years of Credited Service |            |            |            |            |            |            |    |       |    |         |
|                                 | 0-4                       | 5-9        | 10-14      | 15-19      | 20-24      | 25-29      | 30+        |    | Total |    |         |
| Average Monthly Defined Benefit | \$ 2,348                  | \$ 2,206   | \$ 3,941   | \$ 4,839   | \$ 5,073   | \$ 6,434   | \$ 6,224   | \$ | \$    | \$ | 4,435   |
| Average Final Average Salary    | \$ 57,224                 | \$ 104,482 | \$ 117,268 | \$ 109,347 | \$ 111,517 | \$ 111,708 | \$ 122,579 | \$ | \$    | \$ | 111,951 |
| Number of Benefit Recipients    | 48                        | 15         | 33         | 31         | 51         | 31         | 24         |    |       |    | 233     |

| 1985 Plan                       |                           |            |            |            |            |          |          |    |       |    |         |
|---------------------------------|---------------------------|------------|------------|------------|------------|----------|----------|----|-------|----|---------|
|                                 | Years of Credited Service |            |            |            |            |          |          |    |       |    |         |
|                                 | 0-4                       | 5-9        | 10-14      | 15-19      | 20-24      | 25-29    | 30+      |    | Total |    |         |
| Average Monthly Defined Benefit | \$ 3,907                  | \$ 3,104   | \$ 4,069   | \$ 5,292   | \$ 6,082   | \$ 3,918 | \$ 6,364 | \$ | \$    | \$ | 4,605   |
| Average Final Average Salary    | \$ 100,518                | \$ 106,483 | \$ 110,912 | \$ 119,169 | \$ 127,835 | \$ -     | \$ -     | \$ | \$    | \$ | 115,674 |
| Number of Benefit Recipients    | 7                         | 4          | 34         | 17         | 12         | 3        | 1        |    |       |    | 78      |

<sup>1</sup> For some members average salary at retirement and years of credited service was not available. The average salary for each group excludes these members. Members with credited service information that is missing are counted in the "0-4" group.

SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**ACTUARIAL ASSUMPTIONS AND METHODS**

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| B. Actuarial Methods     | 34          |

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions

The assumptions used in the valuation were selected and approved by the INPRS Board of Trustees. The demographic assumptions are reviewed every five years through a study of actual experience. In this way, the actuary provides guidance to the Board in selecting the assumptions. The actuary and other economic and investment professionals also provide advice to the Board for selecting the economic assumptions. In our opinion, the assumptions are reasonable for purposes of this valuation.

|                                   |  |
|-----------------------------------|--|
| Interest Rate / Investment Return | 6.75% (net of administrative and investment expenses)            |
| Future Salary Increases           | 4.0% per year  |
| Inflation                         | 3.0% per year  |
| Cost of Living Increases          | 4.0% per year in deferral and retirement                         |
| Mortality (Healthy and Disabled)  | 2013 IRS Static Mortality projected five (5) years with Scale AA |
| Disability                        | 1964 OASDI Table. Illustrative rates shown below:                |

| <u>Age</u> | <u>Rate</u> |
|------------|-------------|
| 20         | 0.060%      |
| 25         | 0.085%      |
| 30         | 0.110%      |
| 35         | 0.147%      |
| 40         | 0.220%      |
| 45         | 0.360%      |
| 50         | 0.606%      |
| 55         | 1.009%      |
| 60         | 1.627%      |
| 65+        | 0.000%      |

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions (continued)

#### Termination

Based on 2005-2010 experience. Rates shown below:

| <u>Age</u> | <u>Rate</u> |
|------------|-------------|
| 20-37      | 4%          |
| 38-65      | 7%          |
| 66+        | 4%          |

#### Retirement

Based on 2005-2010 experience. Rates shown below:

| <u>Age</u> | <u>Rate</u> | <u>Age</u> | <u>Rate</u> |
|------------|-------------|------------|-------------|
| 55-61      | 20%         | 65         | 50%         |
| 62         | 25%         | 66-74      | 30%         |
| 63         | 15%         | 75+        | 100%        |
| 64         | 10%         |            |             |

#### Decrement Timing

Decrements are assumed to occur at the beginning of the year.

#### Spouse/Beneficiary

90% of members are assumed to be married or to have a dependent beneficiary. Male members are assumed to be four (4) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

#### Data Assumptions

Actives and inactives with no date of birth and/or no gender are assumed to be age 57 and/or male. Spouse gender is assumed to be the opposite gender of the member.

Retirees and disabled members with an unknown marital status are assumed to be married. Retirees and disabled members that are not married are assumed to be receiving a single life annuity. Retirees and disabled members that are married are assumed to elect a 50% joint and survivor annuity.



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## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions (continued)

#### Changes in Assumptions

For the June 30, 2012 valuation, the Board approved the following assumption changes:

- The interest rate assumption was decreased from 7.0% to 6.75%.
- The mortality table was changed from the 2008 IRS Static Mortality projected five (5) years with Scale AA to the 2013 IRS Static Mortality projected five (5) years with Scale AA.

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## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### **B. Actuarial Methods**

The actuarial methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing method employed in determining the Actuarial Value of Assets may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation.

#### 1. Actuarial Cost Method

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

#### 2. Asset Valuation Method

Actuarial Value of Assets is equal to a four-year smoothing of gains and losses on the Market Value of Assets, subject to a 20% corridor.

#### 3. Changes in Actuarial Methods

There have been no changes in actuarial methods since the June 30, 2011 valuation.

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## SECTION VI - SUMMARY OF PLAN PROVISIONS

### **SUMMARY OF PLAN PROVISIONS**

Page

Summary of Plan Provisions

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## SECTION VI - SUMMARY OF PLAN PROVISIONS

### Summary of Plan Provisions

The benefit provisions for the JRS are set forth in IC 33-38-6, 33-38-7, and 33-38-8. A summary of those defined pension benefit provisions is presented below:

**Participation**                      All individuals serving as a judge or justice in Indiana as defined in IC 33-38-6-7. A judge who begins service before September 1, 1985 shall be a participant of the 1977 System (IC 33-38-7) and a judge who begins service after August 31, 1985 shall be a participant of the 1985 System (IC 33-38-8).

#### Eligibility for Defined Pension Benefits

- a.    Normal Retirement      Earliest of:
  - Age 65 with 8 or more years of creditable service
  - Age 55 with sum of age and creditable service equal to 85 or more
- b.    Early Retirement        Age 62 with 8 or more years of creditable service
- c.    Late Retirement         Subject to continued employment after normal retirement
- d.    Disability Retirement    A participant is considered disabled if two (2) physicians certify that the participant is totally incapacitated from earning a livelihood and that the condition is likely to be permanent
- e.    Termination              8 or more years of creditable service and no longer active (i.e. vested inactive)
- f.    Pre-Retirement Death   8 or more years of creditable service entitled to a future benefit

## SECTION VI - SUMMARY OF PLAN PROVISIONS

### Summary of Plan Provisions (continued)

#### Amount of Benefits

- a. Normal Retirement      The normal retirement benefit is a monthly annuity payable for life with a 50% continuation (or \$12,000 annually, if greater) to a surviving spouse or surviving dependent children. The benefit is equal to a percentage of earnings<sup>1</sup> in accordance with the following table:

| <u>Years of Service</u> | <u>Percentage</u> |
|-------------------------|-------------------|
| 7 or less               | 0%                |
| 8                       | 24%               |
| 9                       | 27%               |
| 10                      | 30%               |
| 11                      | 33%               |
| 12                      | 50%               |
| 13                      | 51%               |
| 14                      | 52%               |
| 15                      | 53%               |
| 16                      | 54%               |
| 17                      | 55%               |
| 18                      | 56%               |
| 19                      | 57%               |
| 20                      | 58%               |
| 21                      | 59%               |
| 22 or more              | 60%               |

An additional percentage shall be calculated by prorating between applicable percentages, based on the number of months in a partial year of service.

<sup>1</sup> Earnings is the annual salary being paid for the office which the participant held at the time of separation from service.

## SECTION VI - SUMMARY OF PLAN PROVISIONS

### Summary of Plan Provisions (continued)

#### Amount of Benefits (continued)

- b. Early Retirement      The early retirement benefit is the accrued retirement benefit determined as of the early retirement date and payable commencing at the normal retirement date. A participant may elect to have the benefit commence prior to age 65 provided the benefit is reduced by 0.1% for each month that the benefit commencement date precedes age 65.
- c. Late Retirement      The late retirement benefit is calculated in the same manner as the normal retirement benefit. Creditable service and earnings earned after normal retirement is included in the computation.
- d. Disability Retirement      The disability retirement benefit is payable for the duration of the disability commencing the month following disability date with reduction for early commencement. The amount of monthly benefit shall be equal to a percentage of average monthly earnings in accordance with the following table:

| <u>Years of Service</u> | <u>Percentage</u> |
|-------------------------|-------------------|
| 12 or less              | 50%               |
| 13                      | 51%               |
| 14                      | 52%               |
| 15                      | 53%               |
| 16                      | 54%               |
| 17                      | 55%               |
| 18                      | 56%               |
| 19                      | 57%               |
| 20                      | 58%               |
| 21                      | 59%               |
| 22 or more              | 60%               |

An additional percentage shall be calculated by prorating between applicable percentages, based on the number of months in a partial year of service.

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## SECTION VI - SUMMARY OF PLAN PROVISIONS

### Summary of Plan Provisions (continued)

#### Amount of Benefits (continued)

- e. Termination

The termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing as of the normal retirement date. The participant may elect to receive a reduced early retirement benefit.
- f. Death Benefit

If death occurs (a) while receiving benefits, (b) while in service as a judge with 8 or more years of service, or (c) while permanently disabled, the spouse or family of dependent children shall be eligible for a benefit equal to the greater of \$12,000 (effective July 1, 1977) annually or 50% of the benefit the participant was receiving or was entitled to receive at the time of death.

Spousal benefits are payable as a lifetime monthly pension.
- g. Post-Retirement Benefit Increases

Participant benefits in the Judges 1977 Retirement, Disability, and Death System increase in the same ratio as the salary being paid for the office a participant held at the time of separation from service increases. Effective January 1, 2010, the Judges 1985 Retirement, Disability, and Death System will also have benefits increase in the same manner, on a prospective basis only.

#### Member Contributions

Each participant contributes 6% of his total salary until completion of 22 years of service.

#### Forms of Payment

- a. Single Life Annuity

Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death.
- b. Joint with One-Half Survivor Benefits

Member will be paid a monthly benefit for life. After death, one-half (1/2) of the benefit will be paid to the spouse for their lifetime or the dependent until age 18 unless disabled. If the dependent child was named the beneficiary, once they are no longer entitled to the benefit, the spouse would receive the benefit for life.

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## SECTION VI - SUMMARY OF PLAN PROVISIONS

### **Summary of Plan Provisions (continued)**

|                            |  |
|----------------------------|--|
| Withdrawal from Fund       | If member's employment is terminated prior to eligibility for a retirement annuity, the member may withdraw their contributions from the Fund.   |
| Cost-of-Living Adjustments | Benefits for retired members increase automatically based on the annual pay increase granted for the position the member held at the time of retirement. The annual cost-of-living assumption for the valuation is 4.0%, which is the same as the salary increase assumption for active members. |
| Changes in Provisions      | No changes since prior valuation.  |



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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **Definitions of Technical Terms**

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Definitions of Technical Terms

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### Definitions of Technical Terms

|                                   |   |
|-----------------------------------|---|
| Actual Rate                       | For valuations prior to June 30, 2011, the contribution rate expressed as a percentage of covered payroll on an annual basis (not less than 0.0%) that is the result of applying applicable smoothing rules to the prior year Actual Rate and current year Actuarially Calculated Rate. Beginning with the June 30, 2011 valuation, the Board resolved to discontinue use of the smoothing rules for establishing contribution rates/amounts. |
| Actuarial Accrued Liability (AAL) | That portion, as determined by a particular Actuarial Cost Method, of the Present Value of Future Benefits (PVFB) and expenses which is not provided for by future Normal Costs. Generally this means the portion of the PVFB attributable to past service.   |
| Actuarial Assumptions             | Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided pension benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items. |
| Actuarial Cost Method             | A procedure for determining an actuarially equivalent allocation of the Present Value of Future Benefits to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.  |
| Actuarially Equivalent            | A method of making the actuarial present value of two series of payments equal as of a given date using the same assumptions.   |
| Actuarial Gain/(Loss)             | The difference between actual unfunded Actuarial Accrued Liability and anticipated unfunded Actuarial Accrued Liability — during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.  |
| Actuarial Present Value           | The single amount now that is equal to a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.   |
| Actuarial Valuation               | The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.   |

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **Definitions of Technical Terms (continued)**

|  |   |
|--|---|
| Actuarial Valuation Date                           | The date as of which an actuarial valuation is performed.   |
| Actuarially Calculated Rate                        | The precise actuarial contribution rate expressed as a percentage of covered payroll that is determined by summing the Normal Cost and amortization of unfunded Actuarial Accrued Liability and dividing by anticipated payroll.  |
| Amortization                                       | The payment of a present value financial obligation on an installment basis over a future number of years.  |
| Annual Required Contribution of the Employer (ARC) | The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the plan provisions, actuarial assumptions, actuarial cost method and other actuarial method prescribed by Governmental Accounting Standards No. 25 and No. 27.   |
| Creditable Service                                 | Service credited under the system that was rendered before the date of the actuarial valuation.   |
| Funding Policy                                     | The program for the amounts and timing of contributions to be made by plan members, employer, and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by a pension plan.   |
| Level Dollar Amortization Method                   | The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.                                   |
| Normal Cost (NC)                                   | That portion of the present value of future benefits which is allocated to a valuation year by the Actuarial Cost Method. The normal cost is specific to the cost method used.  |
| Plan Assets  | Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan. |

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **Definitions of Technical Terms (continued)**

|   |  |
|---|--|
| Plan Members                            | The individuals covered by the terms of a pension plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.   |
| Present Value of Future Benefits (PVFB) | Projected benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members upon retirement) as a result of their service through the valuation date and their expected future service. The actuarial present value of projected future benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment (taking into account mortality, turnover, probability of participating in plan retirement, etc.). Alternatively, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay the projected benefits when due. |